

ABSTRACT OF THE DISCLOSURE

In a frequency-domain excision system for a wideband receiver, a window function is applied to blocks of received signal samples and a transform function is applied to the windowed blocks. Each block of frequency-domain coefficients from the transform function is morphologically filtered to generate a threshold function representing an estimate of the spectrum of the desired wideband signal, and a non-linear gain function is applied to the coefficients. The gain function has a fixed-gain region for input values less than a threshold value from the threshold function, an excision region for input values greater than a multiple of the threshold value, and a soft limiting region between the fixed-gain region and the excision region. The inverse transform is performed on the excised blocks of coefficients, and an overlap-eliminating central portion of the inverse of the window function is applied to the resulting blocks of signal samples.